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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,929	12/10/2003	Kang Soo Seo	1740-000077/US	6314
30593 7590 01/25/2008 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER HILLERY, NATHAN	
			ART UNIT 2176	PAPER NUMBER
			MAIL DATE 01/25/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/730,929

Applicant(s)

SEO ET AL.

Examiner

Nathan Hillery

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 8-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/10/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: Election filed on 2/23/07.
2. Claims 1 – 19 are pending in the case. Claims 1 – 7 are elected for examination at this time. Claim 1 is independent.

Priority

3. Applicant is advised of possible benefits under 35 U.S.C. 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.
4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
5. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a certified English translation of the foreign application must be submitted in reply to this action. 37 CFR 41.154(b) and 41.202(e).

Failure to provide a certified translation may result in no benefit being accorded for the non-English application.

Election/Restrictions

6. Claims 8 – 19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2/23/07.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 5 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

9. The limitations "the resolution of the text presentation reference time is lower than the resolution of the video presentation reference time" and "the resolution of the text presentation reference time is of the order of several milliseconds" are merely recited in claims 5 and 6, respectively, and are not described in the specification at all.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1 – 3 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda et al. (US 20060098936 A1).

12. **Regarding independent claim 1**, Ikeda et al. teach that the time obtained by adding an offset to the time indicated by a PTS is substantially the same as the time

indicated by a PTS attached to the video packet read from the BD-ROM. Accordingly, as a result of the processing performed by the audio decoder 6 described above, the playback outputs for the video frames read from the BD-ROM are in synchronization with the playback outputs for the audio frames read from the HD. The synchronization between the audio and the image is maintained due to the processing performed by the demultiplexer 14 and the audio decoder 6 described above (paragraph block 0170), which meet the limitation of **generating video presentation reference time synchronized with program clock reference (PCR) included in a video data stream reproduced from a recording medium;**

Ikeda et al. teach that when the clock inside the playback apparatus reaches a time obtained by adding an offset to the display ending time in the header, the image decoder 9 makes the subtitle disappear. As a result of the processing described here, the subtitles are displayed and made disappear in synchronization with the playback of the video (paragraph block 0202), which meet the limitation of **generating text presentation reference time by adding an offset value to the video presentation reference time;** and

Ikeda et al. teach that the AV stream (XXX.M2TS) is an MPEG-TS (transport stream) format digital stream obtained by multiplexing a video stream, one or more audio streams, and one or more sub-image streams. Video streams show the moving image portions of a movie, audio streams show the audio portions of a movie, and sub-image streams show the subtitles of a movie. FIG. 6 schematically shows how an AV stream is structured (paragraph block 0115), which meet the limitation of **presenting**

the video data stream and text-based data simultaneously, the video data stream being presented based on the video presentation reference time and the text-based data being presented based on the text presentation reference time.

13. **Regarding dependent claim 2**, Ikeda et al. teach that when the clock inside the playback apparatus reaches a time obtained by adding an offset to the display ending time in the header, the image decoder 9 makes the subtitle disappear. As a result of the processing described here, the subtitles are displayed and made disappear in synchronization with the playback of the video (paragraph block 0202), which meet the limitation of **wherein the offset value is the difference between the initial presentation time stamp (PTS) of the video data stream and the initial presentation time stamp (PTS) of the text-based data.**

14. **Regarding dependent claim 3**, Ikeda et al. teach that the demultiplexing processing is performed by the demultiplexer 14 with reference to a time stamp, such as PCR (Program Clock Reference) or ATS (Arrival Time Stamp), that is attached to each TS packet and the offsets included in the stream management information (paragraph block 0169), which meet the limitation of **wherein the text-based data does not include program clock reference (PCR) information.**

15. **Regarding dependent claim 7**, Ikeda et al. teach that it becomes possible to freely switch subtitles, for example, from the subtitle on the BD-ROM to the subtitle on

HD, or from the subtitle on the HD to the subtitle on the BD-ROM (paragraph block 0205), which meet the limitation of **wherein the text-based data is recorded on the recording medium or provided by an external source through a network.**

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (US 20060098936 A1), as applied to claim 1 above and further in view of Jung et al. (US 20040081434 A1).

18. **Regarding dependent claim 4, Ikeda et al. do not explicitly teach wherein the text-based data is subtitle data written in a mark-up language.**

Jung et al. teach that referring to FIG. 11, a markup language is used as text data for subtitles (paragraph block 0116), which meet the limitation of **wherein the text-based data is subtitle data written in a mark-up language.**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ikeda et al. with that of Jung et al. because such a combination would provide the users of an information storage medium on which sub picture data is recorded with a data structure in which when video data are coded, the amount of bits to be generated for sub picture data need not be considered in advance and an apparatus therefor (paragraph block 0031).

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following generally relates to subtitle synchronization:

Yogeshwar; Jay et al.	US 6219043
Roe, Glen E. et al.	US 20040054771
Kalhour, Morteza	US 20020010924
Crinon; Regis J.	US 7188353
Surcouf, Andre et al.	US 20030206553
Crinon; Regis J.	US 7174560
MacInnis, Alexander G. et al.	US 20030189571
Goldberg; Jason et al.	US 20060259941

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (571) 272-4091. The examiner can normally be reached on M - F, 10:30 a.m. - 7:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on (571) 272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to be 'NH' followed by a stylized flourish.

Nathan Hillery
Examiner
Art Unit 2176

NH